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NASA Procedural Requirements

COMPLIANCE IS MANDATORY

NPR 8020.12C

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Subject: Planetary Protection Provisions for Robotic Extraterrestrial Missions

Responsible Office: Science Mission Directorate

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Chapter 1. Introduction

1.1 Relationship to Planetary Flight Project's Project Plan

- a. NPD 7120.4, Program/Project Management, requires the preparation of a Project Plan during the formulation of any flight project. The Project Plan specifies how the project will incorporate any required planetary protection planning. The scope of related information to be included and the level of detail will vary with each Project Plan. In general, planetary protection planning should be described so as to be consistent with other elements of the Project Plan.
- b. The management approach is a part of each Project Plan and should include the broad management aspects of the planetary protection activities of the project. Required planetary protection planning documents, as specified in Chapter 2 of this document, should be referenced in the Project Plan.

1.2 Planetary Protection Categorization of Missions

Each planetary mission will fall into one or more categories based on the planetary protection priorities of each extraterrestrial solar system body and the mission plan. Planetary protection priorities and corresponding mission categories are given in Table 1. Each category has different planetary protection requirements, as defined in Chapter 2 of this document. Mission categorization is determined by the Planetary Protection Officer (PPO) as discussed in 2.1.1.b.

1.3 Deviations

Any deviation from the requirements of this NPR is subject to the review and written approval of the PPO, NASA Headquarters. Procedures for requesting deviations are given in 2.4.

1.4 Revisions

This revision incorporates changes and improvements and reflects current planetary protection requirements for robotic missions. Further revisions of this document will be issued as new information warrants.

Table 1. Planetary Protection Mission Categories

Planetary Targets Priority	Mission Type	Mission Category
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Not of direct interest for understanding the process of chemical evolution, or where exploration will not be jeopardized by terrestrial contamination. No protection of such planets is warranted and no requirements are imposed.	Any	I
Of significant interest relative to the process of chemical evolution but only a remote chance that contamination by spacecraft could jeopardize future exploration.	Any	II
Of significant interest relative to the process of chemical evolution and/or the origin of life or for which scientific opinion provides a significant chance of contamination which would jeopardize a future biological experiment or exploration program(s).	Flyby, Orbiter	III
Of significant interest relative to the process of chemical evolution and/or the origin of life or for which scientific opinion provides a significant chance of contamination which would jeopardize biological experiments or exploration program(s).	Lander, Probe	IV
Any Solar System Mission	All Earth-Return	V

- Notes:
- 1) For missions that target or encounter multiple planets, more than one category may be specified for planets targeted or encountered.
 - 2) For missions utilizing gravity assist by means of a flyby of another planet, requirements will usually be those for the target requiring the higher degree of protection.

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